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Trends in US Fiscal 2002 Federal R&D Budget Compilation

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8.1 Introduction

With the 2002 fiscal year close at hand (October 2001-September 2002) in the USA, Congressional deliberations on the Federal budget of same are entering the final stages.

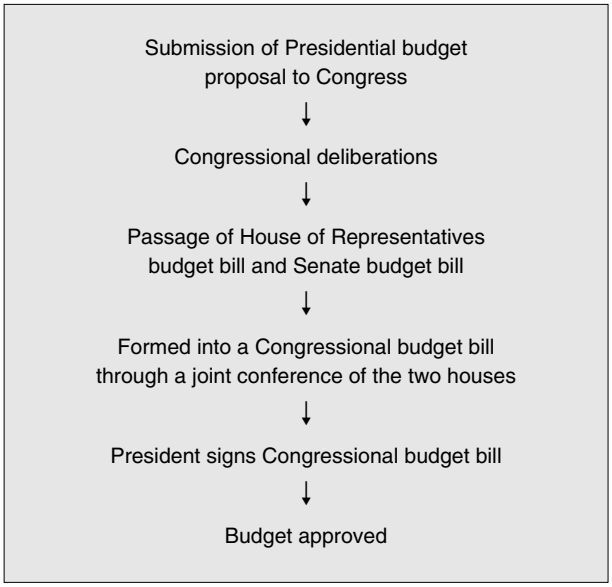
A report in the May issue, "Policy Trends in the Government R&D Budgets of Japan, the US and Europe," surveyed America's fiscal 2002 Federal R&D budget based on the Presidential budget proposal announced April 9. At the time of announcing the Presidential budget proposal, however, the DOD (Department of Defense), to which almost half of the Federal R&D budget is allocated, was in the midst of a full-scale revision of national defense policy, and so in the Presidential budget proposal, as a budgetary demand of the said department a value was used temporarily in which inflation conversion and so on was added to the fiscal 2001 budget.

Thereafter at the end of June, the aforementioned revision of national defense policy was completed, and the DOD R&D budget in the Presidential budget proposal was revised upwards. Furthermore, in response to the Presidential budget proposal, the House of Representatives and Senate held respective budget deliberations and already budget bills for Federal agencies apart from the DOD and NIH have been announced by both houses, but these budget bills of the two houses differ on many points with the Presidential budget proposal. Furthermore on August 28, the Congressional Budget Office revised downwards the GDP real growth rate for fiscal 2002 from 3.4% indicated in January this year, to 2.6%. This revised value is also lower than the GDP real growth rate of same (3.2%) that the White House's Office of Management and Budget (OMB) estimated in the State of the Union Message given on February 28, and places greater pressure on the fiscal 2002 budget.

In view of the above, there is a strong possibility that the fiscal 2002 Federal R&D budget will differ quite significantly from May projections. For this reason, this paper looks at the US fiscal 2002 Federal R&D budget based on the latest state of budget preparation.

8.2 Budget compilation process

Compilation of the US Federal budget is carried out according to the process shown below.

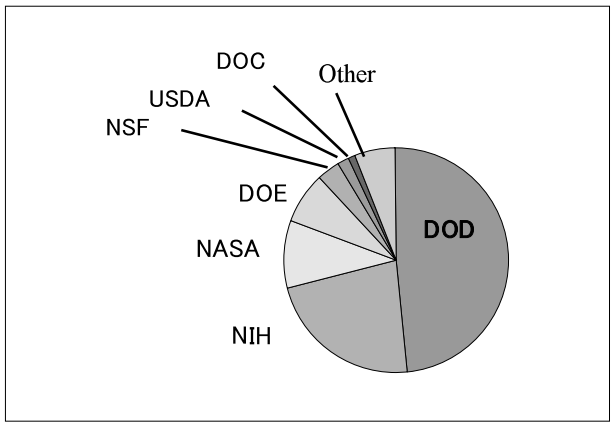


In the US, it is Congress and not the President that holds the right to formulate budgets, and so the President's Federal budget proposal is sometimes altered considerably in the process of Congressional deliberations.

8.3 Overview of Presidential budget proposal

Figure 1 shows DOD budget amendments added to the Presidential budget proposal, in regard to

Figure 1: Presidential proposal concerning the US fiscal 2002 Federal R&D budget



DOD: Department of Defense
NASA: National Aeronautics and Space Administration
NSF: National Science Foundation
DOC: Department of Commerce
NIH: National Institutes of Health
DOE: Department of Energy
USDA: United States Department of Agriculture

Note: Created based on AAAS Report XXVI: R&D FY 2002 and R&D in the FY 2002 Department of Defense Budget, AAAS

the Federal R&D budget for fiscal 2002.

Figure 2 shows the percentage of changes in said Presidential budget proposal against the previous year.

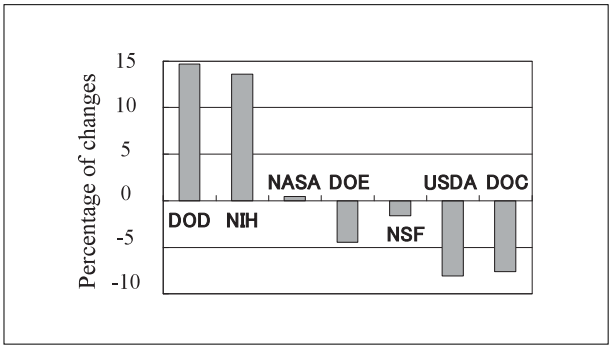
In the Presidential budget proposal, R&D appropriations for the DOD and NIH have increased about 15% compared to the previous year, but other Federal agencies remain at current levels or are decreasing.

8.4 Overview of House of Representatives budget bill

The House of Representatives has already drawn up a budget bill of Federal agencies apart from the DOD and NIH in regard to the fiscal 2002 R&D budget, and Figure 3 shows the percentage of changes in said budget bill against the previous year.

In the House of Representatives bill, R&D appropriations for NASA and NSF are up 5-8% from the previous year, while the DOC budget is down about 10%.

Figure 2: Percentage of changes versus the previous year of Presidential budget proposal concerning fiscal 2002 Federal R&D budget



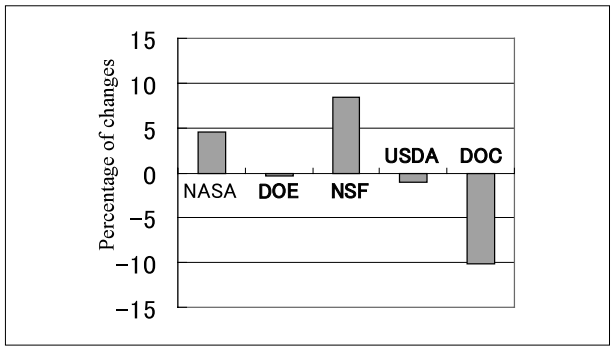
Note: Created based on AAAS Report XXVI: R&D FY 2002 and R&D in the FY 2002 Department of Defense Budget AAAS

8.5 Overview of Senate budget plan

The Senate also has already drawn up a budget bill of Federal agencies apart from the DOD and NIH in regard to the fiscal 2002 R&D budget, and Figure 4 shows the percentage of changes in said budget bill against the previous year.

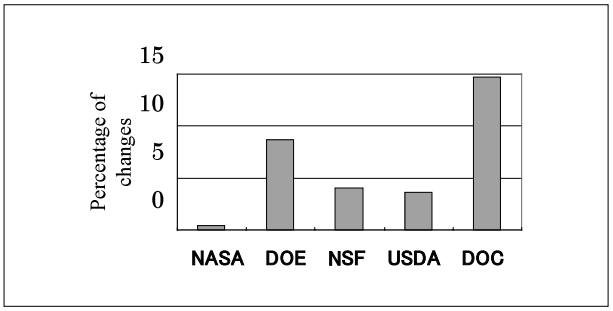
In the Senate bill, the appropriations for Federal agencies apart from the DOD and NIH are all up from the previous year and in particular the DOC increase is substantial.

Figure 3: Percentage of changes in House of Representatives bill versus previous year in regard to fiscal 2002 Federal R&D budget



Note: Created based on AAAS Analysis of R&D in the FY 2002 Budget (8/29 version)

Figure 4: Percentage of changes in Senate bill versus previous year in regard to fiscal 2002 Federal R&D budget



Note: Created based on AAAS Analysis of R&D in the FY 2002 Budget (8/29 version)

8.6 Trends in budget bill compilation

From figures 2 through 4, we can see that there are many points of difference in the Presidential budget proposal, House of representatives bill and Senate bill, and differences in political party colors, lobbying activities and so forth are cited as factors for this.

As for R&D appropriations for Federal agencies apart from the DOC and NIH, in the Presidential budget proposal all Federal agencies are down by and large compared to the previous year, while in the House of Representatives bill, some Federal agencies are down while others are up, and in the Senate bill, they are up in the main. Political party colors have a major influence in this. In other words, with the House of Representatives, where the President, belonging to the Republican Party, and the power of said party are the dominant force, there is a strong tendency to want to hold in check Federal R&D investment, reflecting the said party's line of wanting to entrust R&D activities to industry. In the Senate on the other hand, where Democratic Party strength is dominant, there is a strong tendency to want ample Federal R&D investment, reflecting the said party's line of wanting to promote R&D under the government's initiative.

Furthermore, the reason that R&D appropriations for the DOD and NIH increased while those of other Federal agencies decreased in the Presidential budget proposal of Figure 2, is largely the result of the President having pledged to "reduce taxes, put more emphasis on education, strengthen national defense capability and expand NIH support" in the recent Presidential elections.

In order to fulfill his campaign promise, the President is trying to increase budgets for the DOD and NIH, but increasing the Federal R&D budget as a whole is difficult since decreased revenues are expected due to tax cuts, and as a way of shifting the loss, the President is trying to reduce R&D budgets for other Federal agencies.

Next, Table 1 shows a comparison of R&D appropriations in the Presidential budget proposal, House of Representative bill and Senate bill for each agency apart from DOD and NIH.

The NSF R&D budget is down in the Presidential budget proposal compared to the previous year, but up in both the House of Representatives and Senate, and behind this are appeals to Congress from the science community and others. Director Koizumi of the AAAS R&D Budget and Policy Program comments, "The science community and others are making appeals to Congress so that sufficient budget is allocated to the many types of programs of NSF, which supports respective activities, and this is having a major influence on Congressional deliberations."

Furthermore, while the DOC R&D budget is down in the Presidential budget proposal and the House of Representatives bill compared to the previous year, it is up in the Senate bill, and this is because the assertions of both parties differ in respect to the said department's ATP (Advanced Technology Program). ATP is a program that was established in 1988 in order to support basic technological development in business, and the Republican Party has a strong tendency to view it negatively and the Democratic Party positively. For this

Table 1: Changes against previous year of fiscal 2002 R&D budgets (for Federal agencies apart from DOD and NIH)

Agency	Changes in fiscal 2002 in respect to fiscal 2001 R&D appropriations
NASA	Current state is maintained in Presidential budget proposal and Senate bill, but in the House of Representatives bill there is an approx. 5% increase.
DOE	Presidential budget proposal shows a decline; House of Representatives bill maintains current state; and Senate plan shows an increase of slightly less than 10%.
NSF	Presidential budget proposal shows a decline, while both the House of Representatives and Senate bills show increases.
USDA	Presidential budget proposal shows a decrease of slightly less than 10%; House of Representatives bill shows a slight decrease; Senate bill shows increase of slightly less than 5%
DOC	Presidential budget proposal and House of Representatives bill show a decrease of around 10%, while Senate plan shows an increase of around 15%.

reason, the President, belonging to the Republican Party, and the House of Representatives in which the said party is dominant, do not allocate an ATP budget in the fiscal 2002 budget, but the Senate, in which the Democratic Party dominates, allocates a higher budget than the previous year.

8.7 Projections for fiscal 2002 Federal R&D budget approval

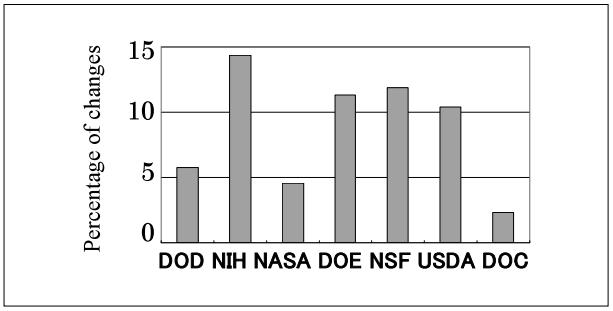
To approve the fiscal 2002 Federal R&D budget, the Senate and House of Representatives from now on need to put together DOD and NIH budget proposals, and in a joint conference of the two houses unify the House of Representatives bill and Senate bill concerning the budget of all Federal agencies including these, and have the President sign it.

But for the DOD and NIH, not only is the budget scale considerable, but the President is also hoping for a substantial increase over the previous year, but in June a bill was approved for a major reduction in taxes, and budgetary constricted pressure is also being applied because of the downward revision of the GDP real growth rate, and the formulation of DOD and NIH budget proposals by the both houses and subsequent adjustment is expected to make slow progress. For this reason, approval of the fiscal 2002 Federal R&D budget is expected to be delayed a further few months after the beginning of said fiscal year in October.

8.8 Comparison of S&T policies of former Clinton administration and Bush administration

The fiscal 2002 budget will be the first budget compilation for the Bush administration and in order to determine a direction in the said administration's future S&T policies, it is attracting much attention. Up to the previous section, we have looked at forecasts of the fiscal 2002 R&D budget from the Presidential budget proposal, House of Representatives bill and Senate bill, but when we compare budget formulation under the new administration with that under the previous Clinton administration, what features are apparent?

Figure 5: Percentage of changes in fiscal 2001 Federal R&D budget against previous year



Note: Created based on AAAS Report XXVI: R&D FY 2002

In this section, we will compare the Presidential budget proposal, House of Representatives bill and Senate bill of the fiscal 2002 Federal R&D budget produced under the Bush administration, with the fiscal 2001 Federal R&D budget produced under the former Clinton administration.

Figure 5 shows the percentage of changes in the fiscal 2001 Federal R&D budget against the previous year.

For the fiscal 2001 Federal R&D budget, all Federal agencies show increases against the previous year, and compared to the Presidential budget proposal, House of Representatives bill and Senate bill of the fiscal 2002 Federal R&D budget, the percentage increases are the largest in many Federal agencies. However, the DOD R&D budget, which President Bush gives prominence to, is the exception.

In regard to this, Director Peterson of SRI International S&T Policy Program comments, "The previous Clinton administration supported a wide range of R&D activities in Federal agencies apart from the DOD, such as many types of IT initiatives including next-generation network initiatives, state nanotechnology initiatives and plans to double the budget for NIH, but the Bush administration is negative towards R&D support of Federal agencies other than the DOD and NIH."

8.9 Conclusion

Compilation of the US fiscal 2002 Federal R&D budget is riding rough waters, and approval is expected to be delayed a few months after commencement of said fiscal year.

The following points are likely to be argued over in Congressional deliberations from now on.

- How to hold in check DOD and NIH R&D budget increases
- How to constrict the budgets of other Federal agencies or level the Social Security funds surplus, in order to cover the DOD and NIH budget increases
- With the ATP, whether to refrain from appropriating any budget anew, or give strong support, allocating a higher budget than the previous year.

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